

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012016**Date Inspected:** 10-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Li Yang and Wu Zhi Cheng	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG Trial Assembly	

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 6AE (Longitudinal Diaphragm) Individual Survey

This QA Inspector performed Individual Survey Inspection with Mr. Manikandan for the Deck Panel Diaphragm for Segment 6AE at Panel Point (PP) 38 East side. The measured readings were recorded in spread sheet, generated the report and submitted to the Task Leader and Engineer for review.

Segment 5AW to 5BW

This QA Inspector performed Individual Survey Inspection with Mr. Manikandan for the Edge Panel I-Rib Stiffener Cross Beam side. As earlier the alignment was recorded to be 8mm in 2500mm. The weld joint EP043-001-015. The alignment check was been performed and recorded as 4mm in 2500mm for Segment 5AW to 5BW between Panel Point (PP) 31 and PP 32. The measured readings were informed to Task leader as it was found to be accepted informed the task leader for NDT coverage.

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### Segment 5AW to 5BW

This QA Inspector performed Joint Survey with Mr. Manikandan ABF Survey Team for the Skin Flatness at B4 Location for 600mm Straight Edge and 5000mm String Line.

### Segment 6BE to 6CE

This QA Inspector performed Joint Survey with Mr. Manikandan ABF Survey Team for the Skin Flatness at B1 and B2 Location for 600mm Straight Edge and 5000mm String Line.

### Segment 6AW to 6BW

This QA Inspector performed Joint Survey with Mr. Manikandan ABF Survey Team for the Skin Flatness at B3 and B4 Location for 600mm Straight Edge and 5000mm String Line.

### 7BW to 7CW

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for weld connecting Floor Beam Flange to the Longitudinal Diaphragm Flange. The weld joints are identified as Seg 030C-009. The welder is identified as 067656. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-FCM-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### 6CW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for the Counter Weight connection plate Counter Weight side. The weld joints are identified as OBW6F-011. The welder is identified as 067942. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U4b-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### 6CW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for the Counter Weight connection plate Counter Weight side. The weld joints are identified as OBW6F-012. The welder is identified as 066179. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U4b-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

### 7AW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for the Counter Weight connection plate Counter Weight side. The weld joints are identified as OBW7M-001. The welder is identified as 066361. In process SMAW appears to be progressing in compliance

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with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U4b-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

7AW

This QA Inspector observed ZPMC welding personnel performing welding by Shielded Metal Arc Welding (SMAW) for the Counter Weight connection plate Counter Weight side. The weld joints are identified as OBW7M-002. The welder is identified as 067942. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U4b-FCM-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

6CE

This QA Inspector observed ZPMC welding personnel performing welding by Flux Cored Arc Welding (FCAW) for weld Strut plate butt weld the hole distance size was not enough and build up was in progress. The welding was been performed against the B-WR 10561. The welder is identified as 067949 and 070046. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-FCAW-1G (1F)-Repair-1. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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